UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,468	07/18/2003	Jae-Sang Lim	K-0531	1145

				EXAMINER
34610	7590	03/22/2006		SINGH, RAMNANDAN P

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ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/621,468	LIM, JAE-SANG
	Examiner	Art Unit	
	Ramnandan Singh	2646	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _18 July 2003_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-20 is/are rejected.

7) ☐ Claim(s) is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _(i) Nov. 20, 2003; (ii) Dec. 02, 2005_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities: In the
specification, paragraph [0001], lines 2-3, the specification states " an ISDN (Integrated
Service digital Network)". Replace the word **"Service"** with the word **"Services"**).
Appropriate correction is required.

Claim Objections

2.   Claims 1, 6, 10, 14 and 18 are objected to because of the following informalities:

Claim 1 recites the limitation " an integrated **service** digital network (ISDN)" in
line 2. This is in error. Replace the word **"service"** with the word **"services"**. A similar
thing holds for claim 14.

Claim 6 recites "The dual **IP** phone of claim 5" in line 1. This is in error.
Examiner assumes "The dual phone of claim 5". A similar thing holds for claim 10.

Claim 18 recites **"The method of claim 17**, a phone, comprising:" in line 1.
This is in error. Examiner assumes "A phone, comprising:"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

4.   Claim 17 recites the limitation "the call party" in line 7. There is insufficient

antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-2, 5, 7-8, 12-13 and 17-20 are rejected under 35 U.S.C. 102(b) as

being anticipated by Yoshikawa [JP 11-136355].

        [JP 11-136355] is prior art under 35 USC § 102 (b) because of its publication

date of 21 May 1999. For convenience, US Patent 6,298, 372 B1 is used as an English

translation . Citations are to column and line numbers in the US patent.]

        Regarding claim 1, Yoshikawa teaches a dual phone shown in Fig. 2,

comprising:

        an integrated service digital network (ISDN) phone unit (26) [Fig. 2];

        an IP phone circuit unit (23) [Fig. 2]; and

a control unit (21) which recognizes an ISDN mode, an IP mode, or an external connection mode (i.e. an external ISDN at a remote terminal) by analyzing input data and controls a voice signal path between the ISDN phone unit and the IP phone unit based on the recognized mode [Figs. 1-2; col. 7, line 2 to col. 3, line 26; col. 4, lines 53-58].

Regarding claim 17, Yoshikawa teaches a method for processing calls [Fig. 6] in a phone which includes an ISDN phone unit and an Internet phone unit shown in Fig. 2 comprising:

receiving a signal selecting a mode of operation of the phone (i.e. initiating a switch) [col. 7, lines 47-51; col. 8, lines 3-8]; and

automatically establishing a voice path between the Internet phone unit and the ISDN phone unit in the selecting mode when a user enters an external connection request (i.e. an external ISDN) with the call party [col. 5, line 56 to col. 8, line 26].

Regarding claim 2, Yoshikawa further teaches the dual phone, comprising:

a connecting unit (28) which switches the voice signal path between the ISDN phone circuit unit and the IP phone unit [Fig. 2] and performs data exchange between the ISDN phone unit and the IP phone unit [col. 8, lines 3-14].

Regarding claim 5, Yoshikawa further teaches the dual phone, wherein the connecting unit comprises:

a data communication unit (i.e. data bus) for exchanging data between the IP

phone unit and the ISDN phone unit [Fig. 2];

a voice signal connecting unit (23) for switching a path of the voice signal

between the ISDN phone unit and the IP phone unit based on a control signal from the

control unit (21); and

a key input unit (2K) for transporting key input data input from a user to the

control unit [Figs. 1, 2; col. 7, lines 2-27].

Regarding claim 7, Yoshikawa further teaches the dual phone, wherein the data

communication unit comprises a bi-directional memory (21A) [Fig. 2].

Regarding claim 8, Yoshikawa further teaches the dual phone, wherein the

connecting unit further comprises:

a hook on/off switch (28) [Fig. 2]; and

a display unit (25) for providing a visual display under control of the control unit

[Fig. 2].

Regarding claim 12, Yoshikawa further teaches the dual phone, wherein the IP

phone unit includes a connector (public line 4, ISP server 5) for establishing a

connection with the Internet (10) [Fig. 1].

Regarding claim 13, Yoshikawa further teaches the dual phone, wherein the IP

phone unit includes a connector (public line 4, ISP server 5, internet 10, ISP server 12, public server 13) for establishing a connection with a computer (14).

Regarding claim 18, Vaziri et al teach a phone, comprising:

a first phone unit (205) which operates in a first communications mode (ISDN) [Figs. 2, 2B, 4, 13; col. 12, lines 13-26; col. 23, lines 22-36]; ;

a second phone unit (202) which operates in a second communications mode (IP) [Figs. 2, 7C; col. 12, lines 48-51; col. 14, lines 55-65];

; and

a control unit (201) which establishes a voice path between the first phone unit and the second phone unit based on a user mode selection signal [col. 3, lines 21-23; col. 5, lines 2-6; col. 9, line 13 to col. 10, line 56; col. 23, lines 22-44].

Regarding claim 19, Vaziri et al further teach the phone, wherein

the first communications mode is ISDN [Figs. 2, 2B, 4, 13; col. 12, lines 13-26; col. 23, lines 22-36]; and

the second communications mode an IP mode [Figs. 2, 7C; col. 12, lines 48-51; col. 14, lines 55-65].

Regarding claim 20, Vaziri et al further teach the phone, wherein the control unit

activates one of the first phone and the second phone unit [Fig. 6, step 604], and de-

activates (i.e. hang up) the other of the first phone unit and the second phone unit in

response to another user mode selection signal [Fig. 6, step 606].

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Yoshikawa [6,298,372 B1] in view of Vaziri et al [US 6,377,570 B1].

Regarding claim 14, Yoshikawa teaches a method of telecommunicating using a

dual phone in which an integrated services digital network (ISDN) phone unit and an IP

phone unit are included in a single device [Fig. 2], comprising:

selecting at least one of an ISDN mode, an IP mode, and an external connection

mode (i.e. an external ISDN) [col. 7, lines 47-51]; and

connecting a data and voice signal path between the ISDN phone and the IP

phone if a user of an external ISDN phone requests an origination call in the external

connection mode [col. 8, lines 3-26].

However, Yoshikawa does not teach expressly authenticating a user of an external ISDN phone.

Vaziri et al teach confirming whether the user is an authenticated subscriber based on information regarding a called party and a password input from the user [Figs. 7B, 7C; col. 13, lines 5-35; col. 14, line 55 to col. 15, line 23]; and

if the user is the authenticated subscriber, confirming an IP address of the called party based on the called party information and connecting the user and a terminal of the confirmed IP address by transmitting the origination call to the terminal of the IP address [Figs. 5-6; col. 7, lines 29-45; col. 13, line 55 to col. 14, line 13; Fig. 13; col. 12, lines 13-26; col. 23, lines 22-36; col. 3, lines 21-23; col. 10, lines 51-56].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine teachings of Vaziri et al with Yoshikawa in order to meet the security requirements of an IP network, and thereby perform any authentication procedure required before establishing a connection with the Internet [Vaziri et al; col. 14, lines 62-66].

Regarding claim 15, Vaziri et al further teach the method, comprising:

providing a dial tone to an external connection requester after automatic connection is established between the ISDN phone unit and the IP phone unit [Fig. 6]; and

inputting the password and a destination phone number of the called party after the dial tone [col. 14, lines 1-36].

9.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yoshikawa and Vaziri et al as applied to claim 14 above, and further in view of Bhatia et al [US 6,028,848] and further in view of Butler et al [US 6,873,689 B1].

Regarding claim 16, Yoshikawa does not teach the method comprising: simultaneously coding voice signals from the external connection requester (i.e. an external ISDN) and external device of the dual IP phone unit (voice processing unit (23) if the IP mode and the external connection mode are set.

It may be noted that this simultaneous coding of two signals –the first signal from an external ISDN, and the second signal from the IP network –are coded in parallel wherein the first signal is coded in the ISDN interface unit (26) and the second signal is coded in the voice processing unit (23) [Yoshikawa: Fig. 2]. However, Yoshikawa does not disclose expressly the details of these units. So one of ordinary skill in the art would have been motivated to seek any embodiments that teach these details, such as Bhatia et al teach an ISDN interface unit, and Butler et al teach a voice processing unit.

Bhatia et al teach an ISDN LAN modem , wherein the ISDN phone unit comprises:

an interface for establishing a connection with the ISDN (310) [Fig. 3; col. 14,

lines 16-28];

a high-level data link controller (HDLC) for framing/deframing data from the

interface[Fig. 3; col. 15, lines 3-67]; and

a first microprocessor (i.e. CPU 330) which generally controls the ISDN phone

unit and transports the deframed data to the IP phone unit [col. 14, line 63 to col. 15,

line 8; col. 5, lines 36-60].

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine teachings of Bhatia et al with Yoshikawa in order to practice

the invention.

Further, Butler et al teach a dual phone system, wherein the IP phone unit

comprises: a vice processing unit (referred to here as server 5) [Fig. 1a; col. 6, line 61

to col. 7, line 33] comprising a second microprocessor (i.e. CPU) which controls a

calling party of the recognized external connection mode to generate a dial tone; a

second codec (70) for simultaneously/independently converting voice signals input from

the ISDN phone and external devices into PCM data; and a digital signal processor

(DSP) (60) which generates and provides to the calling party the dial tone under control

of the second microprocessor, receives and format-converts data from the second

codec, and provides the converted signal to the second microprocessor [Figs. 3a, 3b;

col. 9, line 41 to col. 10, line 49].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art   to combine teachings of Butler et al with Yoshikawa in order to use the invention.

As such, the first codec of the ISDN interface unit (26) and the second codec of the voice processing unit (23) enables simultaneously coding of voice signals received from two independent sources.

In addition, for example, Butler et al further teach converting the coded data into a standard data format for the respective called party; and selectively storing the data format to match data transmission rates between the external connection requester and the called party of the IP address [Butler et al; col. 5, line 63 to col. 6, line 10].

10.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa as applied to claim 5 above, and further in view of Vaziri et al [US 6,377,570 B1].

Regarding claim 6, although Yoshikawa teaches a data communication unit as shown in Fig. 2. he does not disclose the details about the data communication unit. So one of ordinary skill in the art would have been motivated to seek any embodiment that provides the details about the data communication unit, such as Vaziri et al.

Regarding claim 6, Vaziri et al further teach the dual phone, wherein the data communication circuit unit comprises a serial port [col. 9, lines 15-19].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine teachings of Vaziri et al with Yoshikawa in order to disclose the details about the data communication unit so that one of ordinary skill in the art can construct the invention.

11.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa as applied to claim 1 above, and further in view of Bhatia et al [US 6,028,848].

Regarding claim 3, although Yoshikawa teaches an ISDN interface (26) [Fig. 2], He does not teach expressly details about the ISDN interface. So one of ordinary skill in the art would have been motivated to seek any embodiment that teaches these details, such as Bhatia et al.

Bhatia et al teach an ISDN LAN modem , wherein the ISDN phone unit comprises:

an interface for establishing a connection with the ISDN (310) [Fig. 3; col. 14, lines 16-28];

a high-level data link controller (HDLC) for framing/deframing data from the interface[Fig. 3; col. 15, lines 3-67]; and

a first microprocessor (i.e. CPU 330) which generally controls the ISDN phone unit and transports the deframed data to the IP phone unit [col. 14, line 63 to col. 15, line 8; col. 5, lines 36-60].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine teachings of Bhatia et al with Yoshikawa in order to practice the invention.

12.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yoshikawa and Bhatia et al as applied to claim 3 above, and further in view of Yamamoto [US 6,246,678 B1].

Regarding claim 4, Bhatia et al further teach the ISDN LAN modem, wherein the ISDN phone comprises: a first codec (coder/decoder) (352) which converts frame data from the interface into a voice signal and a handset/speaker phone unit for inputting/outputting the voice signal to/from the first codec under the control of the first microprocessor (330) [Figs. 3, 4B; col. 14, line 63 to col. 15, line 8; col. 5, lines 36-60; col. 26, line 56 to col. 27, line 6].

Bhatia et al do not teach expressly using a PCM interface.

Yamamoto teaches using a PCM interface with the ISDN that converts an externally input voice signal into pulse code modulation (PCM) data [Figs. 1-5; col. 3, lines 36-40; col. 13, lines 11-18].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine teachings of Yamamoto with Yoshikawa and Bhatia et al in order to communicate with an integrated communication system of voice and data which connects the dual phone to an external high speed communication network [Yamamoto; col. 1, lines 6-11].

13.   Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa as applied to claim 1 above, and further in view of Butler et al [US 6,873,689 B1].

Regarding claim 9, although Yoshikawa teaches a voice processing unit (23) [Fig. 2], he does not teach expressly details about the voice processing unit. So one of ordinary skill in the art would have been motivated to seek any embodiment that teaches these details, such as Butler et al.

Butler et al teach a dual phone system, wherein the IP phone unit comprises:

A vice processing unit (referred to here as server 5) [Fig. 1a; col. 6, line 61 to col. 7,

line 33] comprising a second microprocessor (i.e. CPU) which controls a calling party of

the recognized external connection mode to generate a dial tone; a second codec (70)

for simultaneously/independently converting voice signals input from the ISDN phone

and external devices into PCM data; and a digital signal processor (DSP) (60) which

generates and provides to the calling party the dial tone under control of the second

microprocessor, receives and format-converts data from the second codec, and

provides the converted signal to the second microprocessor {Figs. 3a, 3b; col. 9, line 41

to col. 10, line 49].

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine teachings of Butler et al with Yoshikawa in order to practice

the invention.

Regarding claim 10, Butler et al teach the dual IP phone, wherein the second

codec has two voice signal paths [Fig. 3a; col. 3, lines 18-38; col. 9, lines16-20; col. 10,

lines 50-60].

Regarding claim 11, Yoshikawa further the dual IP , wherein the voice signal in

the IP mode and external connection mode (i.e. an external ISDN mode) is input to

different voice signal paths, respectively [Fig. 2; switches "a" and "b"].

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tonnby et al [US 6,515,996 B1] teach an IP-modem [Whole document].

15.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramnandan Singh
Examiner
Art Unit 2646